

## **DEVELOPMENT OF MANAGERIAL PERSONNEL IN MANUFACTURING SECTOR: A CASE STUDY IN CHITTOOR DISTRICT**

**C. Rajanikanth<sup>1\*</sup> and V. Tulasi Das<sup>2</sup>**

<sup>1</sup>Research Scholar, Department of HRM, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India.

<sup>2</sup>Research Supervisor, Department of HRM, Acharya Nagarjuna University, Guntur, Andhra Pradesh, India.

### **Abstract**

According to Human Development Report 2008, the HDI of India is 0.619 and was ranked 128 out of 177 countries. Human development, though a macro concept has micro implications. At the micro level, human development is considered to be mainly organizational in nature, which is referred to as Human Resource Development. In the development of individuals lies the development of organizations as well as of nations. The economic development cannot be accomplished in developing countries unless they have well educated and trained, highly achievement motivated and properly developed human resources. In HRD organizations, every supervisor has the responsibility to ensure the development of his or her subordinates in relation to the capabilities required to perform their jobs effectively. Generally, the supervisor schedules individual meetings with each employee to discuss the employee's performance, communicate the performance areas that need attention, and jointly establish areas to be worked on or goals to be achieved by the next scheduled discussion. The present paper deals with the impact of training and development on the employees in the manufacturing sector.

**Key words:** Human Capital- HRD- Training and development

### **1. Introduction**

Human Factor is the most important resource that makes the difference amongst nations as well as the organizations. According to World Bank's Assessment of 192 countries on an average physical capital which claims itself as the most important proactive wealth accounts only for 16 percent of the total wealth, natural capital accounts for 20 percent but the 'human capital' accounts for 64 percent. Human capital is the only resource with an apparent potential to develop better ideas and get appreciated over the time period. Human capital refers to the knowledge and skills of the individuals (Becker, 1964) which acquired and

developed through education, training and experience. A firm's human capital is responsible both for its day-to-day productivity and future innovations (Drucker, 1993). It is defined as the knowledge and skills including training, experience, judgment, intelligence, relationships, and insight of individual managers and workers in a firm (Barney, 1997).

Managerial personnel will not survive unless they keep pace with the modern management education, research, theory, principles and practices. This will be possible only if they are exposed to various techniques of executive or management development. Management development is the first and foremost responsibility of the highest level of management. Top management can full fill this responsibility in three ways (David Edwing, 1981).

\*Corresponding author: **C. Rajanikanth**

Tel.: +91 7396585839

E-mail: [rajaniod@gmail.com](mailto:rajaniod@gmail.com)

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## 2. Evolution of HRD in India

The term Human Resource Development (HRD) has been gaining wide currency in India especially even the early 1980s. In fact, contrary to the trend elsewhere, the buzz word in people management in India is HRD and not HRM (Saini, 2000). Rao and Pereira (1986) have argued that, even though HRD processes may have existed in the country earlier, a professional outlook to HRD started only in the early seventies. According to Pareek, the term was first used in India in 1972 by the State Bank of India. HRD processes did, in fact, exist in Indian industry long before the early seventies.

## 3. Statement of the Problem

The present study is concerned with development of managerial personnel of managers in relation to certain variables. It examines the differences in the performance of managers in various organizations i.e. large scale industries, medium scale industries and small scale industries, various departments i.e. Human resource, production, finance and marketing and others and various designations i.e. General Managers, managers, senior assistant managers, junior assistant Managers and supervisors.

It establishes the relationships between development of managerial personnel and other variables namely, socio – demographic variables Organization, Department, Designation, Tenure, Age, Annual income and Educational qualification of the managers.

## 4. Objective of the Study

- To study the development of managerial personnel in manufacturing sector in Chittoor District.
- To predict the development of managerial personnel with independent variables.

## 5. Research Methodology

The present study is survey type investigation. Various procedures that are followed in the construction and standardization of data gathering instruments and the tools adopted to measure the impact of different variables that are included in the study are discussed. The methods adopted in selection of the sample, collection of data, scoring and analysis are as follows.

**Table - 1: Variables used for Regression Analysis**

Variable Number (VN)	Description of the variable	Symbol used
1.	Organization	O
2.	Department	D
3.	Designation	DE
4.	Tenure	T
5.	Age	A
6.	Annual income	AI
7.	Educational qualification	EQ
8.	Development of managerial personnel	DMP



**Table - 2: Prediction of Development of managerial personnel with the help of all independent variables (1-7)**

Step No.	IV (VN)	R	R <sup>2</sup>	SER	F value for R	b (VN)	't' value for b	Constant	B	r	% variance
1	2	3	4	5	6	7	8	9	10	11	12
1.	EQ (7)	0.376	0.141	13.847	98.512 <sup>***</sup> (1, 598)	6.928 (7)	9.93 <sup>***</sup>	355.47	0.376	0.376	14.144
2.	T (4)	0.444	0.197	13.400	73.377 <sup>***</sup> (2, 597)	5.764 (7) 4.629 (4)	8.24 <sup>***</sup> 6.45 <sup>**</sup>	349.329	0.313 0.245	0.325	11.769 7.963
3.	A (5)	0.490	0.240	13.053	62.636 <sup>**</sup> (3, 596)	5.176 (7) 4.131 (4) 3.887 (5)	7.52 <sup>***</sup> 5.86 <sup>**</sup> 5.76 <sup>**</sup>	343.675	0.281 0.218 0.211	0.298	10.568 7.107 6.297
4.	AI (6)	0.502	0.222	12.953	50.230 <sup>**</sup> (4, 595)	4.197 (7) 3.369 (4) 3.810 (5) 2.538 (6)	5.60 <sup>***</sup> 4.56 <sup>**</sup> 5.69 <sup>**</sup> 3.18 <sup>**</sup>	342.117	0.228 0.178 0.207 0.136	0.347	8.570 5.796 6.173 4.706

**Table - 3: Summary of the last (6<sup>th</sup>) step of step-wise multiple regression analysis to predict Development of managerial personnel score with the help of all independent variables (1 – 7)**

Step No.	IV (VN)	R	R <sup>2</sup>	SER	F value for R	b (VN)	't' value for b	Constant	B	R	% variance
1	2	3	4	5	6	7	8	9	10	11	12
1.	EQ (7)	0.376	0.141	13.847	98.512 <sup>***</sup> (1, 598)	4.713 (7)	6.24 <sup>**</sup>	348.064	0.256	0.376	9.622
2.	T (5)	0.444	0.197	13.400	73.377 <sup>***</sup> (2, 597)	3.664 (5)	5.52 <sup>**</sup>	-	0.199	0.325	5.936
3.	A (4)	0.490	0.240	13.053	62.636 <sup>**</sup> (3, 596)	2.638 (4)	3.48 <sup>**</sup>	-	0.139	0.298	4.538
4.	AI (6)	0.502	0.252	12.953	50.230 <sup>**</sup> (4, 595)	3.545 (6)	4.25 <sup>**</sup>	-	0.190	0.347	6.574
5.	O (1)	0.512	0.262	12.884	42.123 <sup>**</sup> (5, 594)	-2.082 (1)	3.00 <sup>**</sup>	-	- 0.114	0.005	-0.062
6.	D (2)	0.520	0.269	12.822	36.551 <sup>**</sup> (6, 593)	-1.258 (2)	2.58 <sup>*</sup>	-	- 0.094	-0.041	0.391

## 6. Results and Discussions

There are 8 variables in this investigation for the purpose of step – wise multiple regression analysis. The variable number, description of the variable and symbol used are presented in Table - 1. Development of managerial personnel (DMP) (i.e.) variable numbers 8 in the Table - 1 is the dependent variable in the present investigation. Development of managerial personnel of managers are very important and is related to a number of socio – demographic variables.

Development of managerial personnel as the dependent variable and seven socio – demographic variables. The prediction of Development of managerial personnel scores (DMP) and the relative contribution of various variables namely; organization, department, designation, tenure, age, annual income and educational qualification on the dependent variable (DMP) is studied, with the help of step - wise multiple regression analysis.



The Development of managerial personnel score (DMP), variable number 8 in Table no.1 is predicted with the help of socio – demographic variables (1 – 7) using step – wise multiple regression analysis.

The influence of ‘socio – demographic variables’ on Development of managerial personnel is investigated through step – wise multiple regression analysis.

The following hypothesis is framed.

### Hypothesis – 1

No single variable or a set of variables (socio – demographic variables [7]) included in the study do not significantly exert their contribution to Development of managerial personnel.

The results of the regression analysis are reported in Table - 2.

It is seen from the Table - 2 that the first variable entered into the step – wise regression analysis is educational qualification (EQ). The multiple correlation (R) obtained is 0.376. It implies that the strength of the relationship between the two variables (DMP and EQ) is about 37.60 percent. It could be seen that R is significant ( $F = 98.512$ ) beyond 0.01 level of significance for 1 and 598 df. The critical value of ‘F’ is 3.86 at 0.05 level and 6.70 at 0.01 level for 1 and 598 df. The coefficient of multiple  $R^2$  is 0.141. This shows that 14.10 percent of the variance in DMP is accounted by EQ.

The standard error of Multiple R (SER) is 13.847. From this it may be inferred that nearly 68 percent of actual DMP value would lie within  $M \pm 13.847$  of DMP value predicted with the help of this variable (EQ).

The partial regression coefficient (b) presented in the column ‘7’ is 6.928. This value indicates that DMP value would change by 6.928 units for every one unit of change in EQ. The ‘t’ value for b is 9.93 which is highly significant at 0.01 level. The value of the constant that could be written to predict DMP at this stage is 355.47.

The general formed of multiple regression equation may be written as.

$$Y = A + b_1 (X_1) + b_2 (X_2) + b_3 (X_3) + \dots + b_n (X_n)$$

Where Y is predicted score on the dependent variable;  $b_1, b_2, b_3 \dots b_n$  are partial regression coefficients;  $X_1, X_2, X_3 \dots X_n$  are scores on different independent variables and A is constant.

Thus the multiple regression equation at the end of this step, could be written as

$$DMP = 355.47 + (6.928) (EQ)$$

Tenure (T) is entered into the step - wise regression analysis as the second most significant variable. The multiple correlation (R) between DMP on one side and EQ and Tenure on other side is 0.444. Thus the strength of the relationship between DMP and the two independent variables put together is 44.40 percent. R is significant at 0.01 level ( $F = 73.377$ , df 2, 597)

The value of  $R^2$  is 0.197. This shows that the two variables put together could explain 19.70 percent of variance in the dependent variable (DMP). Out of this 11.769 percent of variance is explained by EQ. The remaining 7.963 percent of variance is accounted for by T (Table - 2, Col. 12).

The regression equation to predict DMP with these two variables (EQ and T) as predictor variables is:

$$DMP = 349.329 + (5.764) (EQ) + (4.629) (T)$$

Where 349.329 is the constant to be considered at this step and 5.764 and 4.629 are the partial regression coefficients of educational qualification and tenure. The ‘b’ values for the variables are significant at 0.01 level.

There would not be much increase in  $R^2$  after the 4<sup>th</sup> step.

The regression equation at the end of 4<sup>th</sup> step could be written as

$$DMP = 342.117 + (4.197) (EQ) + (3.369) (T) + (3.810) (A) + (2.538) (AI)$$



It is observed from the Table - 2 that it could be possible to explain 25.24 percent of variance in the dependent variable DMP, with the help of above four variables.

There are six steps in this regression analysis. Summary of the last (6<sup>th</sup>) step of step-wise multiple regression analysis to predict Development of managerial personnel score with the help of all dependent variables (1 – 7) is given in Table - 3.

The regression equation at the end of 6<sup>h</sup> step could be written as;

$$\text{DMP} = 348.064 + (4.713) (\text{EQ}) + (3.664) (\text{T}) + (2.638) (\text{A}) + (3.545) (\text{AI}) + (-2.082) (\text{O}) + (-1.258) (\text{D})$$

It is observed from the Table no.3 that it could be possible to explain 26.90 percent of variance in the dependent variable DMP, with the above six variables.

There are six steps in this regression analysis. The summary of the last step (6<sup>th</sup>) of step – wise multiple regression analysis with Development of managerial personnel score as dependent variable and seven (1 – 7) as dependent variable shows that the value of  $R^2$  is 0.269. This shows that these six variables put together could explain 26.90 percent of variance in the dependent variable (DMP).

Hence, it is concluded that Development of managerial personnel score could best be

predicted with the help of Educational qualification, Tenure, Age, Annual income, Organisation and Department among the seven (1 – 7) independent variables.

Hence, the null hypothesis that no single variable or a set of variables (7 all independent variables) included in the study do not significantly exert their contribution to Development of managerial personnel is rejected.

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